

ABSTRACT

Water contained in cathode effluent from a cathode (1B) of the fuel cell power plant is condensed by a condenser (8) and recovered to a water tank (10). Water in the water tank (10) is supplied from a pump (17) to a humidifier (4) which humidifies hydrogen-rich gas supplied to an anode (1A) via a water passage (9B). When the power plant stops operating, a controller (30) first recovers water in the water passage (9B) to the water tank (10). Also, the freezing probability of the water passage (9B) is determined from the temperature detected by an outside air temperature sensor (31), and a wait time is set according to the freezing probability. By opening a drain valve (15) and draining residual water in the water passage (9B) after the wait time has elapsed, freezing of the water passage (9B) can be prevented with a minimum water drainage amount.

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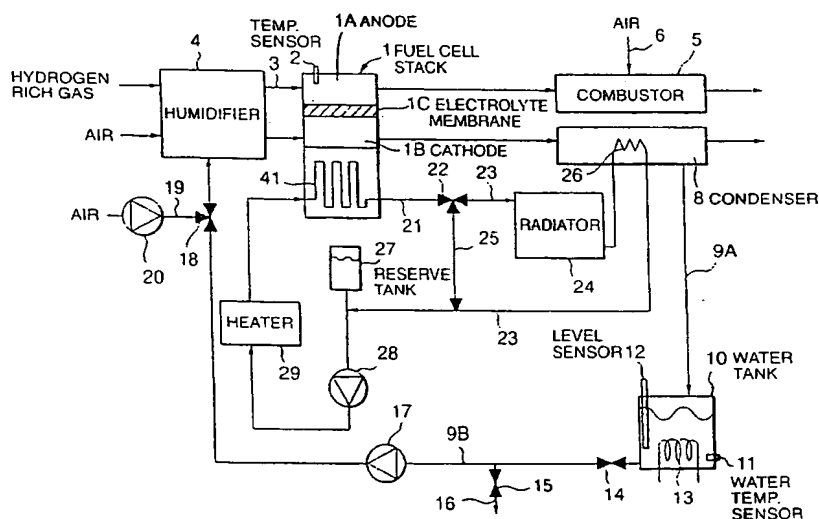
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(57) Abstract: Water contained in cathode effluent from a cathode (1B) of the fuel cell power plant is condensed by a condenser (8) and recovered to a water tank (10). Water in the water tank (10) is supplied from a pump (17) to a humidifier (4) which humidifies hydrogen-rich gas supplied to an anode (1A) via a water passage (9B). When the power plant stops operating, a controller (30) first recovers water in the water passage (9B) to the water tank (10). Also, the freezing probability of the water passage (9B) is determined from the temperature detected by an outside air temperature sensor (31), and a wait time is set according to the freezing probability. By opening a drain valve (15) and draining residual water in the water passage (9B) after the wait time has elapsed, freezing of the water passage (9B) can be prevented with a minimum water drainage amount.